



Butterfly &
Other
Invertebrates Club Inc.
Newsletter

ISSUE NO: 15

DATE: DECEMBER, 1999

ISSN: 1236-0006

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AIMS OF ORGANISATION

- To establish a network of people growing butterfly host plants;
- To hold information meetings about invertebrates;
- To organise excursions around the theme of invertebrates e.g. butterflies, fireflies, ants, dragonflies, beetles, freshwater habitats, and others;
- To promote the conservation of the invertebrate habitat;
- To promote the keeping of invertebrates as alternative pets;
- To promote research into invertebrates;
- To encourage the construction of invertebrate friendly habitats in urban areas.

NEWSLETTER DEADLINES

If you want to submit an item for publication the following deadlines apply:

March issue – February 21st;

June issue – May 21st;

September issue – August 21st;

December issue – November 21st

COMMITTEE MEETINGS

A quarterly meeting is scheduled in order to plan club activities and the newsletter.
See BOIC Programme.



EDITORIAL

Hello members. Welcome to our 15th newsletter. We have been making good progress over the five years since our formation meeting in October 1994. In this time our club has grown to over 90 members. Our membership base has doubled since the release of our poster last year. We would love to start seeing more of you at our meetings and excursions. These are valuable times and places for the exchange of ideas and information and for having fun learning about small creatures and their environment.

We have recently begun an exchange of newsletters with a group in Tasmania. They issue a newsletter called *Invertebrata*. It was pleasing to note that they referred to our newsletter and complimented us on our work, especially the recent article on a cicada trip by two of our members.

After many hours of work by our Club members in writing an Australian Fritillary Interim Recovery Plan, we have been disappointed to receive the news that we didn't receive funding from the Natural Heritage Trust for a project to assist the recovery of this butterfly. We will pursue this through a variety of sources during the coming year.

Wishing you Seasons Greetings, and a Happy New Year.

Helen Schwencke

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EXCURSION REPORT

Part Two –“ Kholo Enviroplan Reserve” by John Moss

Readers will remember Frank Jordan’s report (p.6 Issue No. 13 June 1999) detailing our May 16th visit to this Ipswich City Council reserve near Pine Mountain, north of Ipswich. The exact location of this approx. 40 hectare site is on the Brisbane River’s south bank between the privately owned World’s End Pocket and the State Government owned Sapling Pocket Nature Reserve. All three areas have both river frontages and mountainous high ground with steep contours, and all are what botanists call Araucarian Vine Forests – that is they are a drier rainforest type with Hoop Pine emergents.

On our first (late autumn) visit we were fortunate to find about 33 butterflies plus one cicada species. This latest visit (on Sunday 14th November 1999) was preceded by a reconnaissance trip by four of us (Jim Johnston, Frank Jordan, Lindsay Popple and the writer) on November the third, to ascertain the access paths and aspects of the terrain. As is often the case, it too became a nature study tour in its own right, and held many surprises for us. Consequently, I will first elaborate on this trip.

On our arrival we parked the vehicles in the tiny bit of available shade and began to organize a cuppa! The World’s End Pocket landowner dropped in for a chat, and as we were talking some of us noticed what felt like drops of rain - but the sky was clear! At first we suspected feeding cicadas, but then we noticed a large colony of Spittle Bugs on a Blood Vine (*Austrosteenisia blackii*) which was literally dripping water (and not blood as the name may have suggested!!). These proved to be the same species as I had found on an *Angophora* tree in my garden at Capalaba. (For more details, await Creature Note in next issue.)

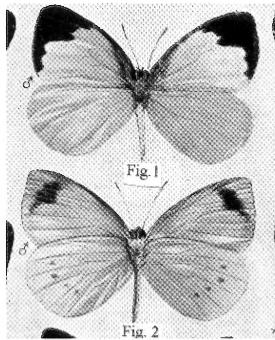
In the surrounding long grass, which was mostly the exotic Green Panic, Lindsay could hear some small grass cicadas. These proved to be the very common and widespread, greenish coloured, Eastern Grass-buzzer (*Urabunana sericeivitta*). The subdued volume and high frequency range of this tiny species ensured that only Lindsay was able to find them. The rest of us (relative oldies with presbyacutic hearing loss!) could only hear them at very close range – i.e held up to our ears in a gauze-topped tube!!

We proceeded along the easement track, stopping briefly to pick up some fallen fruit from a *Harpullia hillii* (or Blunt-leaved Tulipwood), finding clear evidence of the presence of the Cornelian butterfly (*Deudorix diovis*) with seed chewings, frass and one tattered spent pupal case.

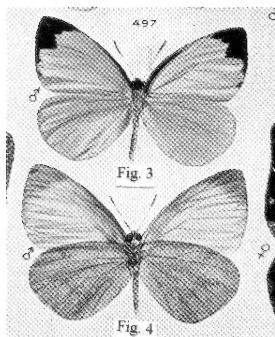
Further along, as we began our climb, Lindsay and I heard a familiar cicada with song similar to the “Sprinkler Squeaker” (*Pauropsalta annulata*), but subtly different. It



was, as expected, in a wattle tree, and as usual very hard to capture. Several more were heard, but, apart from one close encounter, we were unable to secure one of these, as yet undescribed, "Mountain Acacia Cicadas".



at the time.



Figs. 1 & 2 : Common Pearl-white,
upperside & underside respectively
Figs. 3 & 4 : Chalky Pearl-white,
upperside & underside respectively

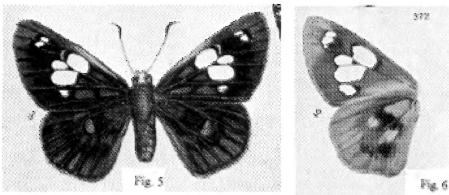
confirmation.

It was only after I had returned home and pinned out the Elodinas that I realized we had unexpectedly found a species new to this area, the Glistening Pearl-white (*Elodina queenslandica kuranda*) which Hancock and De Baar had originally described from North Queensland specimens and which, until now, was only known to occur as far south as River Heads, in the vicinity of Maryborough, on the coast. We hope to have preliminary results of the life history work in the next newsletter.

Another surprising find was a male of the Rare Red-eye butterfly (Figs. 5 and 6) (*Chaetocneme denitza* – suggested new name "Ornate Dusk-flat"). This was found resting with outspread wings on the underside of a leaf of the Red Kamala tree

Nearby, we noticed large clusters of yellowish-orange eggs on *Capparis arborea* shrubs/trees which were obviously those of the Caper White. There were also singly placed, spindle-shaped, white, pink and yellow eggs which we presumed were those of the *Elodina* species (Common Pearl and Chalk Whites) and the Australian Gull (*Cepora perimale*), all of which are known to feed on this species of *Capparis*, and adults of which were seen in flight

It wasn't long before we found two female Elodinas ovipositing on two species of *Capparis*. The first was a Chalk White (Figs. 3 and 4) (*Elodina parthia* – suggested new name "Chalky Pearl-white") which was laying its eggs on the tiny leaves of the spiky scrambler *Capparis sarmentosa*. Then we saw what looked like a Common Pearl-white (Figs. 1 and 2) (*Elodina angulipennis*) ovipositing on the underside of fresh leaves of *Capparis arborea*. Frank collected several of these eggs for further life history studies, and I collected several adults for species



Figs. 5 & 4: Rare Red-eye, male & female



(*Mallotus philippensis* family Euphorbiaceae), although its actual larval hostplant is probably in the families Myrtaceae or Sapotaceae (of which 18 and 4 respectively are recorded for this reserve). It was just a chance sighting, as one of us looked up from under the tree and saw the butterfly silhouetted against the leaf, which had become translucent due to the bright midday sun. This is only the second time the writer has encountered this rare species – the previous occasion (also with Jim Johnston) was in eucalypt woodland near the township of Helidon, when a female of the normally dusk-flying species was captured feeding at Lantana flowers, at about 2 pm on a sunny day, in October last year.

The only other new species of note seen on this recce was the beautiful and elusive Fourbar (now Four-barred) Swordtail (*Protographium leosthenes*) (for illustration see p. 14, Issue No. 12, March 1999). A specimen of this flew lazily over our heads in the vicinity of its host plant, Rauwenhoffia or Zig-Zag Vine (*Melodorum leichhardtii*) which was in early fruit.

I will leave the full list of our recce findings and those of the 14th November excursion for Part Three (see next newsletter).

John Moss

(Figures appearing in this article were from: *The Butterflies of Australia – Waterhouse & Lyell, 1914*)

REPORTS

Photographing Little Things - By Robert Ashdown, Club member and natural history photographer

I found a great quote the other day by the American botanist George Washington Carver. He wrote:

“To all those who have not yet learned the secret of true happiness, begin now to study the little things in your own door-yard.”

I think everybody here will appreciate that quote. For a few years I have enjoyed studying the little things in, and a bit beyond, my own 'door-yard'. I must confess that I know very little about invertebrates. However, as an Education Officer at the Queensland Museum I get to work with some very knowledgeable invertebrate people and have had fun learning a little from them.

I regard myself as a general naturalist, with a particular interest in frogs, reptiles and birds of prey. Photography is a passion of mine, and the photography of little things has had me enthralled now for a few years. In the last few years I've also been using my photography in conservation issues. This has been a double edged sword - in some ways I've gone from just photographing anything I've liked to planning photos, and using the results, in particular local conservation battles. I've spent hours in swamps trying to photograph the things that live there so that I can show people the wealth of life in areas that may be threatened with destruction. Giving local talks and slide



shows is very enjoyable. I've also been involved in various committees, which does take up lots of time and energy, and is not as much fun as photographing things. I am going to show you some photographs I've taken of little things. I'm using a broad definition of 'little', some of these animals are not so small.

I don't think that you need to photograph things to be able to 'see' them, but I do think that the photographer learns to see more within things – the 'worlds within worlds' that can be so easily overlooked. Photographer Brook Sanderson wrote:

"The virtue of the camera is not the power it has to transform the photographer into an artist but the impulse it gives them to keep on looking."

You certainly develop this impulse if you're into photographing nature. Often you even notice things in photos long after you've taken them.

There are many aspects to photographing nature, from the technical to the aesthetic. Apart from learning more about particular creatures, you can just enjoy the patterns, forms, textures and colours that surround us in nature.

These things can be a challenge to capture on film. One thing's for sure, there are a million more fun photos waiting to be taken in the natural world around us, so if you've got a camera, give it a go!

These photos give an example of worlds within worlds. On a Museum trip to Emerald I'd stopped in Theodore and was looking at this old overgrown child's gravesite. They had planted a little tree near the grave and as it grew it had pushed the surrounding fence aside. I took a photograph and when looking closely I then noticed this wood moth emerging from the tree.

Photography of little things is quite a trial and error process. One device we have to help us out today is the electronic flash - a clever invention, and a great aid for the natural history photographer. It's like having a small sun in your hand to illuminate small subjects and to help capture colour and detail on film. You can fire a flash from the side, which will often bring out the detail in a butterfly's wing or the skin of an animal. Or, you can use two flashes from either side of the camera to give a better light. A true macro lens is an essential item if you plan to do lots of close-up photography.

The first critters that really got me into macro photography were frogs. I spent a lot of time experimenting with flashes and lenses. Experimenting is essential with this kind of photography.

This is a Red-eyed Tree Frog at Running Creek, in Lamington National Park. The first shot is the frog in its habitat, the second is an extremely close-up of the animal. Both approaches tell different things about the creature. This is a large female frog. They usually stay up in the canopy but descend on warm, stormy nights to breed. They have a loud, wailing call. I could hear one calling loudly very close but could not find it at first even though it was deafening me with its noise. Eventually I realised that it was sitting on the shoulder of my raincoat!

When you get even closer to things you begin to see amazing patterns and colours.



This is a Giant Barred Frog - one of our now rare frog species.

Frogs are just the best characters to photograph - this is an Emerald Spotted Tree Frog from Dalby. When I first started to work for the Museum I was a seconded teacher and I travelled for three years taking artefacts and specimens out to schools in the far west. I had lots of opportunities to wander the swamps and bush at night looking for interesting creatures to photograph. In this case I could hear the maniacal cackling call of this frog from the motel I was staying in.

This is a Holy Cross Frog near Chinchilla. I just happened to be on the road for the three driest years in the last ten, not good when you're a keen frog photographer. I had been looking for this particular frog for a while on a rainy night. I hadn't seen anyone on the road for a fair while, but just as I found this frog a farmer drove along and narrowly missed flattening it. This stunning frog secretes a poisonous compound from its colourful skin. This frog has a call like an owl - it gives a whooping sound.

Reptiles have also fascinated me, especially as there are so many species in my local area. This is a Common Tree Snake in my back yard. Most snakes are difficult to photograph. Around the Brisbane area we have about 25 species - they are mostly harmless.

The patterns on the bodies of snakes are marvellous. This is the skin of a live Carpet Python.

A couple of years ago I had the good fortune to travel to the Simpson Desert. It is the kind of place where there are lots of interesting invertebrates. I particularly liked the different camouflage colourations of grasshoppers - this is one that looks like a gibber stone, this one like sand, this one like a twig! The patterns that animals leave in the sand are also fascinating and fun to photograph. The skinks there were wonderful. This is one of my favourite animals of all time - a Thorny Devil. Like a wind-up toy, they keep walking if you pick them up. An absolutely exquisite creature, and a delight to photograph.

Back to my own door-yard. Photographing local things over the last few years has taught me how fortunate we are to have such a large range of native plant and animals in our city. This is Mistletoe in flower in my yard. The caterpillars are of the Common Jezebel butterfly. Here are several that I brought inside, where they pupated into butterflies.

There are obviously many tricks to photographing butterflies, none of which I've learned! I recently tried to photograph a Common Eggfly that was wandering up and down my yard. Just as I set up all my gear, the thing flew over and landed on my arm! Hmm ... how to pick up the tripod and aim the camera at myself? I needed a wide-angle lens, not a macro one!

Here are several insect shots that I contributed to the Museum's Wildlife of Greater Brisbane. I found this Cuckoo Wasp floating in the kitchen sink, thankfully still alive. I also had a colony of Mason Bees in a wall, and was able to photograph one for the Some of the local creatures are particularly weird and apparently little known by the locals. This is a Red Triangle Slug - a most colourful creature, found munching away



on material on the bark of a tree.

A bit farther afield in the local area, we are very fortunate to have some local bush reserves. This is Tingalpa creek, where I've done some conservation work. Areas surrounding the bush reserves here are continually threatened by proposed housing developments and road corridors. The draft Council City Plan required lots of time and effort to check - not much chance for photos there for a few weeks. The Tingalpa and Lota Creek area is wonderful - mangroves and the bay through to Saltmarsh and eucalypt forest. Lots of different plant communities and lots of different animals – small and large.

The mangroves are mysterious places to photograph. They are very magical and spooky at certain times of the day. This is a dragonfly warming itself in the morning. The Ironbark forests beyond the mangroves are a source of constant inspiration. This is one of my favourite animals - a Collared Sparrowhawk, nesting in this forest. They raised four young here last year and three young the year before that. You see them fly through the suburbs but the spots they choose for breeding are well hidden and in bush remnants.

We recently put nesting boxes up in a local area called Melaleuca Environmental Park - a very active Bush Care group there is led by Dianne Cliffe. We were stunned to find squirrel gliders had moved quickly into the boxes - we hadn't even seen them in the area. I took this photo hanging from a branch of an iron bark tree. We've also had some success there with bats roosting in bat boxes - in one box we had 30 bats then three weeks later a local lobbed a brick through the side of the bat box and destroyed it. Time to start again.

These are some local frogs - the Graceful Tree Frog. One frog we found in our area that delighted us was this one, the Eastern Gungan. This is a tiny burrowing frog about a centimetre long. Its call is a little squelching noise and we've only found it in one spot, around Tingalpa Creek.

This is a Major's Broodfrog. We didn't think they still lived in the Wynnum/Manly area until we found a colony of them recently in the middle of a housing development, in a small patch of remaining melaleuca swamp.

This is a freshwater crayfish - it is the smallest crayfish in Australia. After being missing from Brisbane for around fifty years it recently was rediscovered by a ten year old crayfish enthusiast. We also have other fascinating local crustaceans such as this Orange-fingered Yabby.

Wildflowers are little local things that are a joy to photograph. They are difficult subjects however. Shots of them in natural light turn out best, but if you then get any wind the shot will be blurred and ruined, as a slow shutter speed is usually required. Lots of patience is needed! This is the Purple Flag or Wild Iris, which only opens for a short while in the morning. It's surprising how many native wildflowers can be found in the bush reserves around Brisbane, all waiting to be admired and photographed.

Photographing tiny things is very exciting, and highly addictive. You may even be



able to indulge in it without having to leave your own yard. I'll leave you with the words of photographer Wynn Bullock:

“Mysteries lie all around us, even in the most familiar things.”

Transcribed by Georgina – edited by Robert

Insect Observations in the Granite Belt – Part 2

Our destination on the sunny but slightly breezy morning of the 3rd of December 1998 was to a forestry area off the Mt Lindsay highway north of Tenterfield on the NSW side of the border. We arrived at our destination mid-morning after crossing into NSW just north of Wilson's Downfall, and (just past Boonoo Boonoo) turning eastwards on to a forestry road until encountering a north-easterly flowing tributary of the Boonoo Boonoo River. This area, Basket Swamp, is where we spent most of our second day in insect observation.

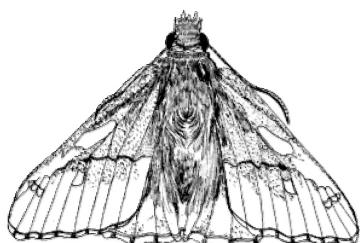
Although we could hear many species of cicadas around us, as for our Mt. Norman experience on the previous day, many of their songs were unfamiliar to us. However, it soon became obvious that there were at least three distinct species, each having either a ventriloquial song or distinctly different phases within one song. Lindsay's keen vision soon spotted these high-flying, high-resting, cryptic species, at least two of which were encountered the previous day at Mt. Norman. Unfortunately we were not able to collect any specimens to compare with specimens in existing collections, and a return trip with u.v. light traps and tape recorders will be required to fully research these undescribed species.

Don was enthralled with the range of skippers found at this site and at an adjoining site, Bark Hut Swamp, a few kilometers up the road. Some species such as *Trapezites phigalioides*, *T. iacchoides*, *Hesperilla malindeva*, *H. donnysa icaria*, *H. ornata ornata*, *Telicota ancilla*, *Toxidia peron*, and *T. parvulus* we had seen the day previously either at Mt. Marlay or near Mt. Norman.

However, there were some new surprises in store for us, including the sighting of a large female *Hesperilla idothea*, the “Flame Sedge-skipper” and the diminutive “Two-spotted Grass-skipper” *Pasma tasmanicus*,

(both firsts for J.T.M!) Also we saw a female *Toxidia doubledayi* the “Lilac Grass-skipper” and several specimens of the “Eastern Iris-skipper” *Mesodina halyzia* which, as its name suggests, feeds on native *Patersonia* species.

Overall on this trip we saw a total of 14 species of skippers, although a further 10 species are recorded from this area.

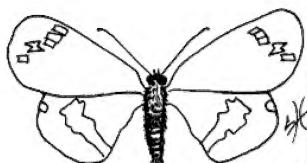


Flame Sedge Skipper



A very large form of the sawsedge *Gahnia sieberiana* dominates parts of these montane heath swamps and it is no doubt host to larvae of many of the *Hesperilla* skippers. We had insufficient time to search for larvae, but had we looked, we would doubtless also have found the bright green larvae of the "Swordgrass Brown" butterfly *Tisiphone abeona regalis*, fresh adult specimens of which were common at these sites and also along the Mt. Norman road in Queensland on the previous day. Males were far more common than females, and looked very similar to the northern coastal NSW form *T. a. morrissi*

However the one female seen appeared to have the cream markings on both upper and undersides more extensive than *T.a. morrissi*, and both males and females were of a richer, darker brown than their coastal counterparts.



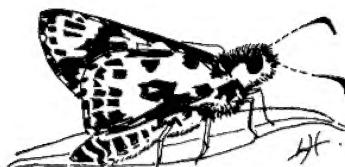
Platagarista tetrapleura

A large congregation of the Agaristid day-flying moth *Platagarista tetrapleura* was seen on *Leptospermum* bushes at a creek crossing between Basket and Bark Hut Swamps. It was not obvious why this had occurred but both males and females were present.

This is an unusual species in which the male has a structure in the wings which rubs against grooves in part of the hind legs, causing a whistling sound as it flies in small circles. Otherwise it doesn't look much different from the other three purplish-black and cream species encountered on the previous day.

A striking feature of the Bark Hut Swamp site was the profusion of white blossom on the heath plant *Epacris obtusifolia*. The reason for the contrasting bright white and dark brown underwing pattern of the "Spotted Sedge-skipper", *Hesperilla ornata* became apparent, as several individuals became almost invisible after they landed on an epacrid flowerhead. It was only the motion of their feeding wanderings that gave them away, such was the effectiveness of this strangely cryptic colouration.

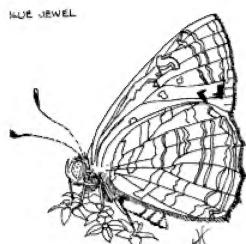
After leaving this site we returned to Mt. Marlay at Stanthorpe in the late afternoon, to have another look for cicadas and hilltopping butterflies. No sooner had we arrived than Lindsay heard another two species of cicada. One was a montane variant of *Pauropsalta corticinus*, the "Bark Squeaker", but unlike the Brisbane variety this had a more regular pattern of song. Another interesting finding was the "Pale Ambertail" *Cicadetta celis* otherwise known as the "Leptospermum Cicada". It is a common widespread species from Canberra to Sydney and north along the coast and ranges (wherever *Leptospermum* grows), just sneaking into Queensland at this Stanthorpe site!



Spotted Sedge Skipper



Meanwhile Don was busy trying to establish the identification of a Jewel butterfly which was uncooperatively but characteristically perched on the very top of one of the highest eucalypts on this mountain! He was eventually able to bring it down to earth with the help of 3 lengths of 6 foot (nr. 2 metre) aluminium extension poles. It proved to be a "Blue Jewel" *Hypochrysops delicia delicia*, one of the prettiest of this group of Lycaenids. We also saw many individuals of the "Australian Gull" butterfly, *Cepora perimale*



Blue Jewel

with males and females being in about equal numbers. These were congregating not at the top of the mountain, but about $\frac{3}{4}$ of the way up on the sunny (by then) western side. Other butterfly species such as Jezebels, Vanessas etc. were seen on this excursion but as they are also lowland species no specific record was kept of their names nor numbers.

This is certainly a very rich area for insects, skippers and cicadas in particular, but we also noted various Jewel and other beetles which would also be interesting to catalogue and research.

John T.St.L. Moss

CREATURE FEATURE

BOTTLE CICADA *Glaucoptaltria viridis*:

The residents of Brisbane's "leafy" suburbs may have wondered about the source of the strange 3-5 note clicking sound that is emitted in their gardens, both day and night, during the summer months. This sound is not made by a bird or a cricket, it is the call of the Bottle Cicada *Glaucoptaltria viridis*.

Late in the afternoon the males produce this clicking song more frequently and by the beginning of dusk, many can be heard also making a chirping song. This means that their dusk chorus is just about to start. At a certain point in time when the sun sinks just a little lower, the vigorous clicking and chirping songs suddenly culminate in a long, drawn out, kettle-like whistle. The males continue this song until the fall of night, all in the hope of attracting females in one brief, half hour period.

The Bottle Cicada is an expert at camouflage. The green colour of its body blends in perfectly with the green outer foliage on which it prefers to perch. The male of this species is a particularly distinctive insect. The shape of the head, thorax and wings is no different from that of any other cicada species, however the incredible size of its abdomen is the distinguishing feature. On emergence, the cicada pumps large quantities of air into its abdomen until it is completely filled, like a balloon. The sound producing organs, known as the timbals, which are located next to the abdomen on both sides of the thorax, buckle at high speed when the male performs his song.



The sound is carried through the hollow abdomen, which acts as a large resonating chamber, aiding in the projection of the song and also allowing for the pleasant, clear, whistle-like tone associated with the dusk song, to be produced. Compared with most cicadas, the male Bottle Cicada is very feeble when in flight and is, therefore, particularly vulnerable to predators, such as birds, if it ever leaves its perch. Females of this species lack the enlarged abdomen (as only the males sing), but otherwise resemble the male.

There are a few other species in the Bottle and Bladder cicada group which often occur with the Bottle Cicada. The Bladder Cicada *Cystosoma saundersii* is similar in appearance and can not uncommonly occupy the same trees. This other species is easily distinguished by its opaque, green, leaf-like wings (Bottle Cicadas have transparent wings). Bladder Cicadas also tend to start singing well after the male Bottle's have started their dusk chorus and their song is always much lower in pitch and more gutteral. Small Bottles Cicadas can also often occur in the same trees as their larger cousins. In most Brisbane suburbs, they make a short (2-4 second), high pitched scream

throughout the day. This can be emitted as often as every 10-15 seconds on a hot day. Bottle Cicadas rarely sing their usual dusk song during the day and when they do it is usually in response to overhead aircraft making enough noise at similar frequencies to "start them off". In the mountains surrounding Brisbane and other localities to the north and south, the song of the Small Bottle Cicada is uttered for much longer (up to half a minute) and more frequently at dusk. This can again create confusion between it and the Bottle Cicada which also sings in the mountains at dusk. However, Bottle Cicadas always *whistle*, whilst Small Bottle's always *scream*. Bottle Cicadas are also the only cicada that makes the distinctive clicking sound during the day. As their name suggests, Small Bottle Cicadas are generally and often distinctly smaller than Bottle Cicadas. The males of both species have enlarged abdomens, but only the larger one has a grossly inflated abdomen. Another distinctive feature of the Bottle Cicada is that live/fresh specimens of both sexes always have silver pubescent markings bordering the top side of the thorax. Only female Small Bottle Cicadas from the mountains occasionally share this feature.

The main distribution of the Bottle Cicada is from near Gin Gin (central Queensland) south to Dorrigo (northern New South Wales). Its also occurs in the Mackay district, including the nearby islands and at Cairns. Residents of these localities will have the privilege to enjoy the sounds of this amazing cicada for a few more months to come.

Lindsay Popple

CREATURE NOTES

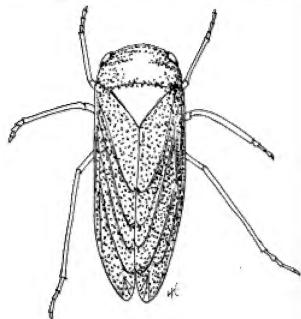


Creature Note #20

11.50am: Whites Hill. Bill, Lindsay and I were on a “reccie” when I saw an insect struggling free of its pupal case. The case was dark, sporting two antennae from its rear end like a pair of cb radio aerials. I had occasionally seen these little creatures scurrying along logs and had idly wondered what they were. All was about to be revealed. There was something vaguely cicada-like about the creature which now had head, “shoulders” and forelegs free, so I called Bill and Lindsay over to observe. The wait was on.

The pupal case shape ruled out cicada. Lindsay predicted the creature would turn out to be a leaf hopper - a close relative of the cicada and a fellow member of the order Hemiptera (sap-suckers). The insect now had most of its body free with crumpled packets on each “shoulder” which were to be the wings. Bill’s camera emerged from its carry-case and close-up rings were fitted. We bemoaned the lack of macro lens and flash. At this stage, the creature was cream with dark green eyes. By 12.20 the body was largely free, elongated and looking as if it couldn’t possibly have emerged from that pupal case, which was still now anchored to the tree, antennae now free to wave in the slightest breeze.

This was the fastest phase of the emergence. Being half in and half out of a pupal case is a pretty vulnerable stage. An assassin bug, largely black, scurried up the trunk. Thoughts that one shouldn’t interfere with nature were dismissed as rapidly as the marauding bug. (There were numerous assassin bugs in the area that day, particularly on logs and in the leaf litter. It was a bad day to be less than 1 cm tall and helpless.)



Leaf Hopper

The wings were unfolding slowly. Lindsay pointed out that this was a critical phase - any disturbance and the wings could be malformed. He had already collected a small cicada (an Eastern Grass-buzzer - *Urabunana sericeivitta*) with one malformed wing, a probable result of an accident during emergence. One wing was slightly longer than the other for quite some time. The wings took on a translucent quality and the complex venation was in evidence. The longer wing was on the side with maximum light. Gradually the wings equalized in length. The insect was still cream, with the eyes the darkest feature. The body was now

less elongated. Lindsay said, “It’ll probably turn out to be grey” and departed in quest of cicadas. Grey? Cream with dark green eyes turn to grey? I had my doubts and was tipping dark green. The leaf hopper now looked less vulnerable, though its camouflage wasn’t too good yet. Bill and I followed the departing cicada hunter with fingers crossed that the little creature wouldn’t be on a lunch menu....

Back at the tree - Time approximately 1.20 and the leaf hopper was indeed grey - pale



grey. It's eyes were now the palest feature, a very light grey. There was a matching very light grey band across the top of the head between the eyes. The new colour was beginning to blend with the trunk of the spotted gum (*Eucalyptus maculata*). The serious business of wing-hardening was continuing even though shape changes had long since stopped.

A flattened bark-dwelling spider darted onto the arena and fled in a series of short rapid dashes. Assassin bug number 2 advanced up the trunk and was persuaded to retreat.

The leaf hopper was now mid-grey, eyes and "head band" (frons) pale grey, legs uniform grey. Around 1.45 the insect was steel grey, eyes and frons several shades paler and the legs were now striped with very dark grey alternating with steel grey in stripes of about .5mm wide. These had the effect of breaking up the outline of the legs against the trunk. The leaf hopper now showed signs of being disturbed by our presence. Any approach closer than 1 metre caused it to move and try to disappear into a dimple in the bark. It was now around 2.00 pm and we were beginning to empathise with the assassin bugs who had also gone without lunch. The emergence was now complete. Hope the slides turn out.

P.S. A search of the C.S.I.R.O. publication "Insects of Australia" leads me to think that the hopper could belong to the family Eurymelidae. It looked very like the *Pognoscopus lenis* in shape, but a positive identification wasn't possible. Eurymelidae occur in Australia, New Guinea and New Caledonia. Most of the Australian representatives feed on Eucalypts.

Rosylin Popple.

Creature Note #21

"Breynia Bush Baby or Red Ash Sawflies Revisited"

I read with interest Ric Nattrass' creature note #19 on "Red Ash Sawflies" in last Issue (no. 14).

Several years ago (April 1993, in fact) I caught a small, yellowish, adult female sawfly in my Capalaba garden and put it in my general insect collection, not knowing its significance, ie that it was an undescribed species, and that another amateur entomologist, Mike Groth, had also found several in March and April of the two previous years, about 10 km north of Toowoomba along the road to Dalby.

At that time I had not associated this insect with the almost complete defoliation of my Red Ash (*Alphitonia excelsa*) trees, attributing this to a combination of Chrysomelid Beetles and Geometrid Moth larvae ("looper" caterpillars). The Red Ash, being hostplant of several butterflies including the Fiery Jewel and the Small Green-banded Blue, was a

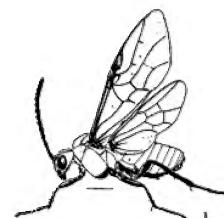


Fig 1 - Sawfly



focus of interest in my garden, and the latter butterfly in particular was a common resident.

How I cursed those beetles and loopers for shredding the trees and reducing available hostplant for my butterfly larvae! Little did I know then that they weren't the only offenders and, as Ric noted, certainly not the main culprit!

Meanwhile, during a Butterfly Club visit to Mike Groth's property at Crows Nest, I was shown an adult of a familiar looking undescribed sawfly which Mike and Dr. Ian Naumann (Entomologist at ANIC Canberra) were jointly investigating. I immediately recalled the specimen in my collection, and next visit passed it on to Mike for onshipment to Canberra, for inclusion in the paper by Naumann and Groth describing this new species as *Philomastix xanthophylax*.

Ric's comment on wet weather promoting explosions of this species is particularly relevant, as, following the good autumn/winter rains of 1993/94, and the return to the "normal" wet season rainfall pattern of the last two years, these insects have become more plentiful in my Capalaba garden.

However, they have now developed a taste for feeding on my *Breynia oblongifolia*

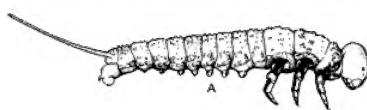


Fig.2 - Larva of *Philomastix* sp.

bushes, for this is where I found the delicate yellow-headed, double-tailed green larvae last May. Of course this plant is also the host for a butterfly, the Common Grass Yellow, and (you guessed it) the sawfly strips it clean, leaving

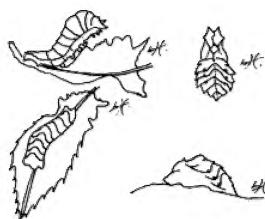
the butterfly pupae totally exposed. I wonder if

their depredations might also extend to eating larvae and pupae of this and other butterflies should the leaf supply give out? Food for thought!! Ric do you think you could persuade some of your Fantail Cuckoo's to pay us a visit? They will be amply rewarded!

John Moss

(Fig. 1 reproduced with permission of H. Groth from the Revision of Philomastigine Sawflies of the World by D. Naumann and H. Groth. Fig. 2 – from CSIRO Insects of Aust. with permission from the Publications Officer)

LETTERS



Pencilled Blue – larvae & pupa

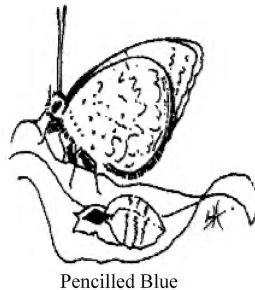
Dear Daphne,

I was so enthralled by my recent experience, I just had to share it with you. Late August early September saw the Pencilled Blue butterflies laying eggs again on the new growth tips of our grafted Macadamia trees. I accidentally broke off a small new shoot and noticing a small caterpillar, placed it in a clear food container to await developments. I also noticed silvery trails on the leaves (similar to the citrus leaf miner) and guessed a caterpillar was



tunnelling away inside.

I didn't have long to wait before I saw a tiny 1mm long caterpillar, banded brightly red and whitish, settle on the container floor and later begin to encase itself in a white silken cocoon. At least 12 more followed! Little wonder that so much of the new growth was damaged. I was really struggling to find enough to feed the hungry crew.



Pencilled Blue

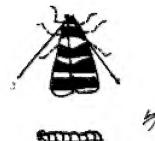
Also, as I daily gathered new leaves I inadvertently brought in more lycaenid eggs or caterpillars. Cute little humpy backed fellows that are so creatively camouflaged I almost threw some out when replacing the old leaves. Even having a head count wasn't foolproof either, as newly hatched ones kept appearing.

They happily fed on the tips of the grafted section or the red tinged leaves of the root stock, the caterpillar taking on the red colouration from these.

After several weeks, each in turn sat quietly on a leaf and pupated. I was thoroughly confused thinking they had just shed their skin and hoping they hadn't developed anorexia, when tempting new leaves failed to entice them to move. They weren't suspended, but just sat on a leaf and were a peculiar shield shape at the back, pinkish beige with darker brown markings. It actually looked like one caterpillar had crawled on the back of another and flattened itself out. They actually did rest on each other at times. Practical experience certainly fills in the gaps of text books info as does the advice of the more knowledgeable (Thanks Rob!).

The moths emerged first a tiny 4 mm from nose to tail, dark brown, with varying width white stripes across the wings. The antennae were fascinating, a millimetre longer than the wings and very mobile twirling and vibrating as it stood on long striped legs.

Maybe someone can put a name to it?



Early October saw the first of the butterflies emerge, two females Macadamia Leaf Moth and a male. But they are so energetic and eager to get on with life, it was difficult to observe them closely. The next two I actually saw shortly after they emerged so I sat down and sketched them as they sat quietly.

Beneath, is a delicate silvery colour with small wavy dark lines, cute pale grey hairy body and striped legs of such fineness it's difficult imagining they could support them, in both male and female. Above, the male is a rich dark blue over an undercoat of dark grey which subdues it somewhat and around the edge of the wings is a shimmering silvery fringe. The body above is dark grey and quite hairy as are the bases of the lower wing where it joins the body. The female is rather nondescript dark grey with a small area of blue at the base of a large white spot on both upper and



lower wings and her body is also dark grey above and hairy with the same silvery fringe edging each wing.

Totally engrossed, I was startled by a rhythmic tapping noise coming from the container and puzzled because I could discern no movement. Suddenly one of the pupal cases burst and out crawled another male, tiny folding wings dwarfed by the swollen body. He clung to the side and in a few moments his wings had filled and grown and were almost ready to carry him on life's great adventure, to fulfil his destiny. What a privilege to have seen a part of God's wonderful creative powers displayed and to have discovered the life cycle of two of the creatures who call the Macadamia "home".

Lois Hughes

"BYE - GONE BUTTERFLY DAYS"

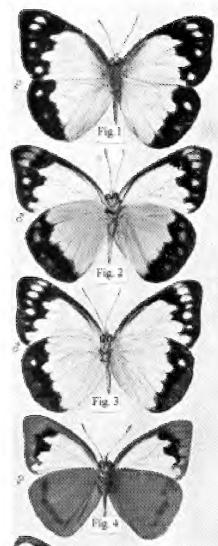
This issue's historical article extract is taken from The Queensland Naturalist July 1920 and was written by naturalist (and amateur entomologist) Rowland Illidge, whom we have met previously. Note that he wrote (and lectured on) the article fully two years before it was published.

"RHOPALOCERA OF SOUTH QUEENSLAND (Notes on Seasonal Forms in Various Species) by R. Illidge (Read 18th August, 1918)

As regards winter and summer forms, heat and cold seem to have a strangely variable effect on the colouration of butterflies. In some cases winter greatly intensifies their hues; especially so is this the case amongst the Lycaenidae. It is usually supposed that summer warmth produces greater brilliancy of colour, but such is certainly not the case with regard to many of our butterflies, amongst which are the various members of the abovementioned family.

In this particular family stands the genus *Nacaduba*, almost all the local species of which exhibit in their winter garb a remarkable brilliancy of metallic splendour, which is not seen in summer forms, or, if so, is much duller and confined to the basal area in more or less restricted extent. In this genus, again, a remarkable feature must be noted, for the brilliant colouration of the winter form affects the female only, the male retaining its general appearance throughout the seasons. In the genus *Thysonotis taygetus* we find the discal area occupied by a large white spot not seen in the summer form; female specimens, on the other hand, show but little, if any, variation.

In members of the family Pieridae, notably of the genera



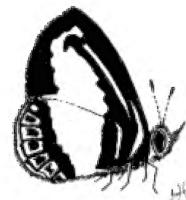
Australian Gull see below

Huphina and *Belenois*, extreme summer and winter forms are produced, which are so utterly unlike each other that they have been described as distinct species. *Huphina scyllara*, found throughout the year, has a distinct monthly change in colour. In winter (June) it is slate colour, and in summer (December) very pale yellow. It has intermediate clay-colour and bright yellow forms varying with the months, some having a dark venation, and others white.

Not only is the colouration of many butterflies affected but the shape of the wings also varies to such a degree as to have caused authors not knowing them as merely forms of the one species to bestow specific rank on them, as in *Melanitis leda bankia* and *M. barnardi*."

Comment: This 1920 paper is relevant to our May 1999 trip to Pine Mountain (Ipswich) Council Reserve (see issue No. 13) (which we have visited again this November – see elsewhere this issue). Frank Jordan's article mentioned that we saw two colour forms of the Australian Gull (*Cepora perimale scyllara*) (Fig. 1). One had a rich slatey-brown underside and appeared quite fresh (Fig. 4), the other had a pale-yellow underside and was quite worn (Fig. 3). These were the winter and summer forms respectively. The spring form seen this October/November was of a much deeper and richer yellow (Fig. 2). These observations equate well with Illidge's comments on the Gull (then *Huphina scyllara* as we have seen in a previous article).

Illidge also mentions some of the lycaenids, in particular our Small Green-banded Blue (*Thysonotis taygetus* – now *Psychonotis caelius taygetus*), as having seasonal colour forms, the winter forms being brighter in colour than the summer forms. He also refers to our Evening Brown (*Melanitis leda bankia*) and states that the (winter) form "barnardi" was once considered to be another species, such were the marked differences in both colour and shape.



Small Green-banded Blue

(Australian Gull: Fig. 1 Upperside; Figs 2-4 underside – spring, summer and winter forms respectively.
From: The Butterflies of Australia – Waterhouse and Lyell, 1914)

John Moss

PLANT PROFILE

Woolly Pomaderris (*Pomaderris lanigera*)

There are over 40 species of Pomaderris in Australia and *Pomaderris lanigera* is one of our local species. Members who went on a recent excursion will recall seeing it in its natural habitat at Ipswich. This plant was more widespread in the past and is on a plant list for Mt Coot-tha and Don Sands recalls seeing it growing at Mt Gravatt in the eighties.



The plant is a shrub with an open habit. It has soft leaves which are green on top and paler underneath. Although its yellow flowers are small they come in clusters and, when this plant is in flower, it is very attractive. It would be a welcome addition to any garden.



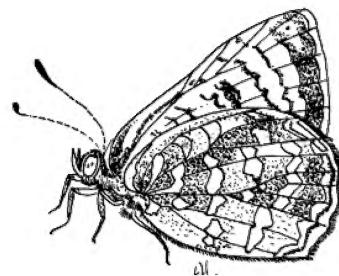
Pomaderris lanigera

Pomaderris lanigera requires a light well-drained soil in an open or partially shaded position. It is not tolerant of water-logging and sometimes plants are lost in the hot, humid months of January and February for this reason. It can be grown from seed. Some people recommend hot water treatment before sowing but I have not been able to try this myself.

There are several leaf-eating beetles and many moth caterpillars that eat the leaves of this plant but its most famous muncher is the caterpillar of the Yellow spot jewel. The male adult butterfly is a rich purple above and the female has orange patches. On the undersides both have red spots and bands with some metallic green edging.

The caterpillars feed on the upper surface of the leaves but rest on the underside of the leaves where they blend in very well with the pale hairy texture of the leaf. They pupate on the plant or sometimes in dead leaves on the ground.

A single female specimen, collected by T Batchelor in 1901 at Mt Gravatt, shows that once this beautiful butterfly existed in Brisbane. It should not be too difficult to include plantings of *Pomaderris* in places such as Griffith University that are close to the original habitat. Perhaps if enough people start growing this plant it may be possible for the yellow spot jewel butterfly to return, though it is presently unclear whether it has any specific habitat requirements.



Yellow Spot Jewel

Frank Jordan

WORLD WIDE WEB SITES TO WATCH

This issues site is <http://www.ifbe.org/>

I've been keeping my eye on the International Federation of Butterfly Enthusiasts website. When I first saw it about 6 months ago, it looked very promising. I went back to have a look again for this article and found the site rearranged (as people are wont to continually do on the Web, whether the change is an improvement or not). One of



my last visits I had joined up, but I haven't heard anything, and I sent a copy of the club's poster, but can't find it there either.

The site claims: "The International Federation of Butterfly Enthusiasts (<ifbe.htm>IFBE), a Washington State (USA) corporation, is a free membership organization with members throughout the world. The IFBE is the world's first global organization dedicated to increasing butterfly habitat!"

We welcome you as an active participator in increasing butterfly habitat in your area by planting indigenous (native) species. Membership in IFBE is open to all who share our purpose, without regard to race, religion, gender, intellect, political views, or economic status."

The hardest part of this website, to my way of thinking, is that when you try to join up for your free email membership, what you get is a free email address for ZIPEE which seems to be hosting the Federations website. It isn't clear that this is giving you any subscription to the Federation only.

The site is worth a visit, and may well develop into a Site to Watch. Some of the links are to butterflies in other parts of the world. The Asian Butterflies link takes you to a site in Japan which looks like it might be interesting for another time.

YOU ASKED

Q. Recently I was repotting a plant when I found something unusual. About 3cms below the surface of the pot I found what appeared to be a hibernating colony of greenish white leafhoppers. Has this social behaviour been recorded before and what is its function?

A. These sail-shaped adult leafhoppers (Colgar sp.) are a familiar sight in many gardens. Their rocket shaped nymphs usually sit on leaves or stems which they have covered with a white waxy powder. Both adults and nymphs are sap suckers.

The adult leafhoppers are prey for a solitary brown wasp which looks a bit like a paper nest wasp. The wasp digs a hole in loose soil and fills these with the captured leafhoppers. I haven't seen how the wasp captures and subdues the leafhoppers but I have seen the wasp flying through the air with its victim. When enough are collected she lays an egg and seals the hole. Eventually a new wasp will emerge.

Frank Jordan

HAVE YOU GOT AN INVERTEBRATE STORY TO TELL. THIS MAGAZINE IS FOR THE MEMBERS TO SHARE THEIR OBSERVATIONS AND EXPERIENCES SO PLEASE CONTRIBUTE.

ITEMS OF INTEREST

Butterfly plants for Brisbane gardens

Greening Australia have produced a leaflet which highlights the butterfly connections



of some of the plants familiar to volunteers involved in community revegetation projects. Unlike many butterfly host plants these ones should be available from nurseries. While the fiery jewel has been included in this leaflet it is unlikely to breed in a suburban garden without the presence of the coconut ant. Unfortunately, although this ant can still occasionally be found in some revegetation sites, it has usually been replaced by foreign ants in more disturbed environments.

The typo gremlins did not create much mischief but they did switch around the labels of the male and female Cyprotus blue butterflies and they also replaced the word chrysalis with the word cocoon.

This leaflet is a welcome addition to the growing literature about local butterflies, especially as it emphasises the caterpillar food plants and not just the nectar plants that are usually offered. The temptation to pick only large showy butterflies has been resisted and some of the smaller less obvious ones have been included. Greening Australia have generously made extra copies of their new leaflet available to be included with the mailout of our newsletter.

Frank Jordan

Our Club Mentioned in National Magazine

Thanks to the efforts of Lois Hughes, Better Homes and Gardens Magazine has enthusiastically embraced our suggestions and has mentioned our club and promoted butterfly gardening in their January 2000 issue on sale December 27th. Thanks Brodee Myers-Cook. We appreciate and applaud your efforts.

LIBRARY BOOKS FOR LOAN

The following books are currently available for loan at meetings:-

Australia's Butterflies, by Peter Wilson

Butterfly Magic, by Helen Schwencke and Frank Jordan

Australian Cicadas, by Max Moulds

Butterflies of Australia, by Common and Waterhouse, 1981

Butterfly Watching, by Paul Whalley

Flying Colours, by Mike and Pat Couper

ADS AND EXCHANGES

Sometimes you may have an oversupply of legally obtained caterpillars of non restricted species and your food supply will not hold out. If this happens, contact Rob MacSloy - 07 3824 4348 - who operates the Register of Host Plants. He can put you in touch with prospective "foster parents". Have **YOU** advised Rob of the host plants you have available?

BUTTERFLY AND OTHER INVERTEBRATES CLUB PROGRAMME

Dragonfly Excursion (and End of Year function) to be led by Ric Nattrass

When: Sat 11th December, 1999 starting 2.30pm

Where: Meet at the Mt. Cootha Botanic Gardens



What:	The excursion will be followed by a BYO BBQ or picnic dinner and (maybe) light trapping at JC Slaughter Falls at the base of Mt.Cootha. During the afternoon we will be visiting good dragonfly sites at the Gardens and in the local vicinity. We will be helping with recording information for NatureSearch
Bring:	Your own afternoon tea, dinner, drinks, crockery and cutlery, snacks to share, torch and insect repellent
RSVP/Contact:	Helen 3844 6677, fax 3844 4333, email hschwenc@dovenetq.net.au

Mt Cotton area excursion and AGM

When:	Sunday, 30th January, 2000, starting at 8.30am
Where:	Meet John Moss's place, at Capalaba
What:	We will be visiting a site, at the top of Mt. Cotton which we have observed to be very productive for butterflies in the past. We expect to be at Mt. Cotton before 9.30 am and may have lunch at the Lookout. We will return to John's for our AGM in the early afternoon. This will be followed by our quarterly Planning and Management Meeting
Bring:	Your own lunch, drinks, hat, sturdy shoes and binoculars
R.S.V.P.:	Helen 3844 6677, fax 3844 4333, email hschwenc@dovenetq.net.au

Pine Mountain Excursion

When:	Sunday, 27 th February, 2000, starting at 1.00pm, stay on for an evening BBQ and light trapping. There are modern electric or gas BBQ's on site
Where:	Meet at Kholo Botanic Gardens (also marked as Mining Museum on the UBD Map 192/N13, Riverside Drive Kholo. From there we will drive to the access point.
What:	We will be visiting a site which has been newly reserved by the Ipswich City Council. Some thirty-three species of butterflies were seen at this location in March 1999 to which another \pm species were added in November, 1999, when it was visited by a number of Club Members.
Bring:	Your own lunch, BBQ dinner, drinks, insect repellent

Bribie Island Excursion

When:	Saturday 15 th and Sunday 16 th April, 2000
Where:	Meet at The House of Happiness, 9am each/either day. Some may wish stay the weekend at the House of Happiness. If so you will need to contact John Moss (3245 2997) at least 2 weeks beforehand
What:	We will be visiting various sites of interest around Bribie Island.
Bring:	Your own sleeping things, insect repellent
R.S.V.P.	John Moss on 3245 2997

If you plan to attend any of the above events please respond to the person indicated in case, for some unforeseen circumstance, the event has had to be postponed or cancelled.



ACKNOWLEDGMENTS

Producing this newsletter is done due to the efforts of:

- Those who sent in letters and articles
- Lois Hughes who provided illustrations and developed the cover
- Daphne Bowden who works on layout, production and distribution
- Stephen McGoldrick who works on production and layout
- John Moss for scientific referencing
- Helen Schwencke who developed the overall design and works on content
- Frank Jordan for inspiration

We would like to thank all these people for their contribution

ARE YOU A MEMBER

Please check your mailing label for the date your membership is due for renewal. If your membership is due, please renew as soon as possible.

Membership fees are \$10.00 for Individuals/Schools and \$15 for family membership.

Butterfly and Other Invertebrates Club Inc.

c/- PO Box 2041

Runcorn Q 4113



**Next Meeting: Dragonfly Excursion (and End of Year function) led by Ric
Nattrass – Saturday 11th December, 1999**

